

11. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

KGVSPSYRCPCRFFESH	(SEQ ID No. 18)
KGVSLPYRCPCRFFESH	(SEQ ID No. 19)
KGVSLSPRCPCRFFESH	(SEQ ID No. 20)
KGVSLSYPCPCRFFESH	(SEQ ID No. 21)
KGVSP*SYRCPCRFFESH	(SEQ ID No. 22)
KGVSLP*YRCPCRFFESH	(SEQ ID No. 23)
KGVSLSP*RCPCRFFESH	(SEQ ID No. 24)
KGVSLSYP*CPCRFFESH	(SEQ ID No. 25)
KGVS <b>Btd</b> YRCPCRFFESH	(SEQ ID No. 26)
KGVSL <b>Btd</b> RCPCRFFESH	(SEQ ID No. 27)
KGVSLSBtdCPCRFFESH	(SEQ ID No. 28)
KGVSPSYRC	(SEQ ID No. 29)
KGVSLPYRC	(SEQ ID No. 30)
KGVSLSPRC	(SEQ ID No. 31)
KGVSLSYPC	(SEQ ID No. 32)
KGVSP*SYRC	(SEQ ID No. 33)
KGVSLP*YRC	(SEQ ID No. 34)
KGVSLSP*RC	(SEQ ID No. 35)
KGVSLSYP*C	(SEQ ID No. 36)

Q<sup>12</sup>

KGVS**Btd**YRC

(SEQ ID No. 37)

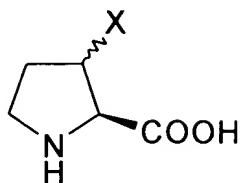
KGVS**L****Btd**RC

(SEQ ID No. 38)

KGVS**L****S****Btd**C

(SEQ ID No. 39)

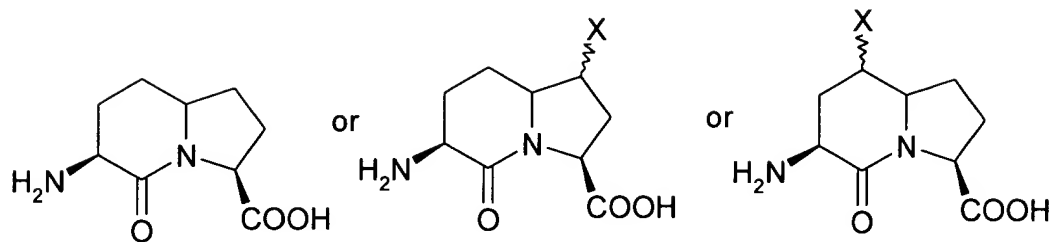
wherein P\* =



with X= Ar, Ar-OH, alkyl and more

Q<sup>12</sup>

and Btd =



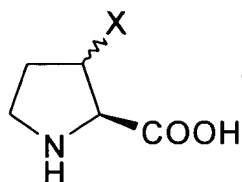
X= Alkyl, Ar, Ar-OH and more

Please amend claim 12 as follows:

12. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of (SEQ ID Nos. 40-50):

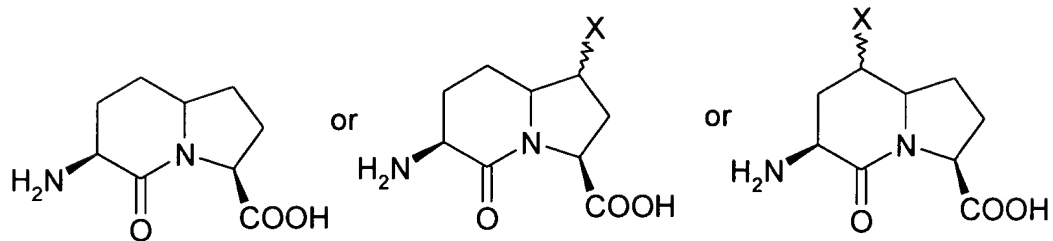
KGVS <b>P</b> SYRC	KGVSL <b>P</b> YRC	KGVSL <b>S</b> PRC	KGVSLSY <b>P</b> C
KGVS <b>P</b> SYRC	KGVSL <b>P</b> YRC	KGVSL <b>S</b> PRC	KGVSLSY <b>P</b> C
KGVS <b>P</b> *SYRC	KGVSL <b>P</b> *YRC	KGVSL <b>S</b> *RC	KGVSLSY <b>P</b> *C
KGVS <b>P</b> *SYRC	KGVSL <b>P</b> *YRC	KGVSL <b>S</b> *RC	KGVSLSY <b>P</b> *C
KGVS <b>Btd</b> YRC	KGVSL <b>Btd</b> RC	KGVSL <b>S</b> BtdC	
KGVS <b>Btd</b> YRC	KGVSL <b>Btd</b> RC	KGVSL <b>S</b> BtdC	

wherein P\* =



with X= Ar, Ar-OH, alkyl and more

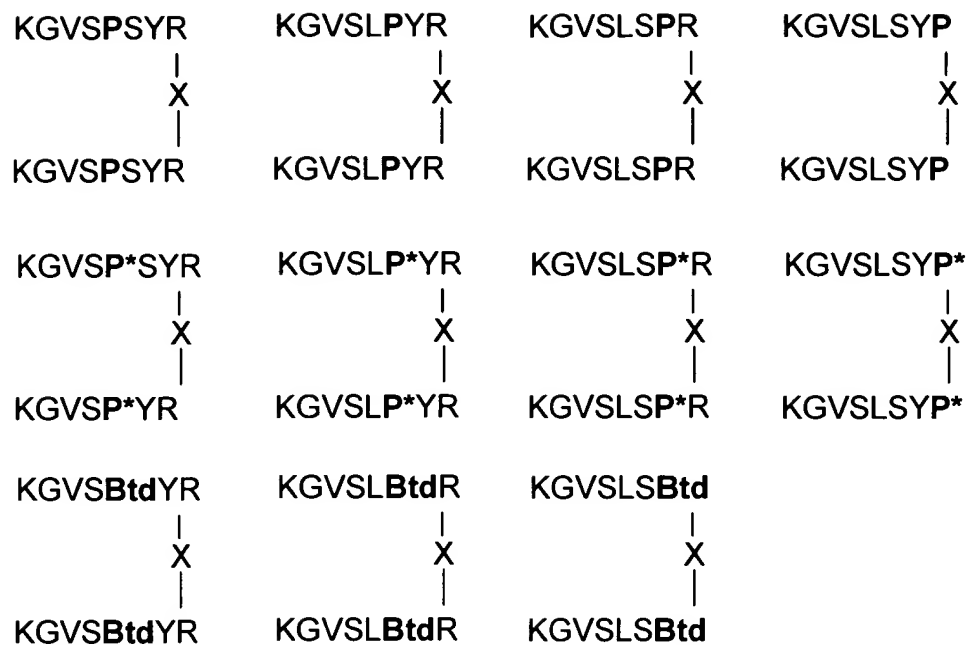
and Btd =



X= Alkyl, Ar, Ar-OH and more

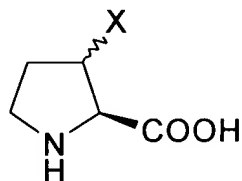
Please amend claim 13 as follows:

13. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of (SEQ ID Nos. 51-72):



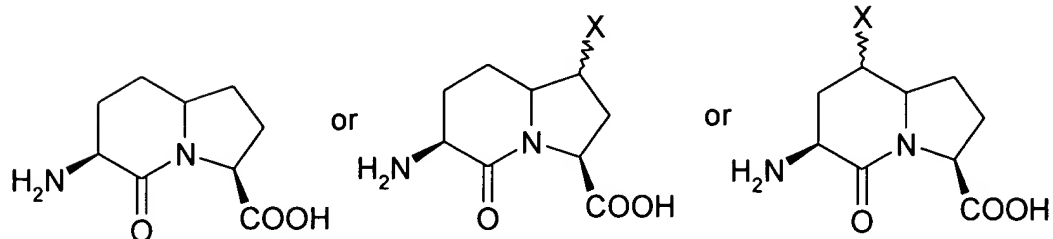
wherein X is a natural or unnatural amino acid linker between each of the arginines at position 8 in each sequence; and,

wherein P\* =



with X = Ar, Ar-OH, alkyl and more

and Btd =



X = Alkyl, Ar, Ar-OH and more

[Please amend claim 14 as follows:]

14. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected

from the group consisting of:

KGVSLSYRCPCRFF-G<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 74)

KGVSLSYRCPCRFFESH-G<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 75)

wherein n is an integer from 0 to 10.

Please amend claim 15 as follows:

15. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

KGVSLSYRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 76)

KGVSLSYRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 77)

where n is an integer from 1 to 20.

Please amend claim 16 as follows:

16. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

KGVS~~PS~~YRCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No.78);

KGVS~~L~~PYRCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No.79);

KGVS~~L~~S~~P~~RCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No.80);

KGVSLSYPCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No.81);

KGVS~~PS~~YRCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No.82);

KGVS~~L~~PYRCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No.83);

KGVS~~L~~S~~P~~RCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No.84);

KGVSLSYPCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No.85);

KGVS~~PS~~YRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.86);

KGVS~~L~~PYRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.87);

KGVS~~L~~S~~P~~RCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.88);

KGVSLSYPCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.89);

KGVS~~PS~~YRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.90);

KGVS~~L~~PYRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.91);

KGVS~~L~~S~~P~~RCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.92);

KGVSLSYPCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No.93),

wherein n is an integer from 1 to 20.

Please amend claim 17 as follows:

17. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

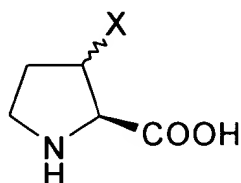
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KGVS**P**\*SYRCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 94);  
KGVS**L**P\*YRCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 95);  
KGVS**L**SP\*RCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 96);  
KGVSLSY**P**\*CPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 97);  
KGVS**P**\*SYRCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 98);  
KGVS**L**P\*YRCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 99);  
KGVS**L**SP\*RCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 100);  
KGVSLSY**P**\*CPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 101);  
KGVS**P**\*SYRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 102);  
KGVS**L**P\*YRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 103);  
KGVS**L**SP\*RCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 104);  
KGVSLSY**P**\*CPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 105);  
KGVS**P**\*SYRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 106);  
KGVS**L**P\*YRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 107);  
KGVS**L**SP\*RCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 108);  
KGVSLSY**P**\*CPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 109);  
KGVS**Btd**YRCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 110);  
KGVS**L****Btd**RCPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 111);  
KGVSLS**Btd**CPCRFF-GGGG-LKWIQEYLEKALN (SEQ ID No. 112);  
KGVS**Btd**YRCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 113);  
KGVS**L****Btd**RCPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 114);  
KGVSLS**Btd**CPCRFFESH-GGGG-LKWIQEYLEKALN (SEQ ID No. 115);  
KGVS**Btd**YRCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 116);

KGVSL**Btd**RCPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 117);  
 KGVSL**Btd**CPCRFF-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 118);  
 KGV**Sbtd**YRCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 119);  
 KGVSL**Btd**RCPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 120);  
 KGVSL**Sbtd**CPCRFFESH-(CH<sub>2</sub>)<sub>n</sub>-LKWIQEYLEKALN (SEQ ID No. 121),

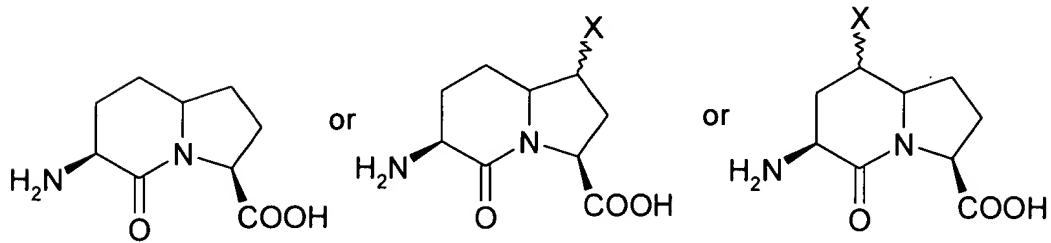
wherein n is an integer from 0 to 20 and

wherein P\* =



with X= Ar, Ar-OH, alkyl and more

and Btd =

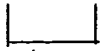


X= Alkyl, Ar, Ar-OH and more

[Please amend claim 18 as follows:]

18. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of (SEQ ID Nos. 122-125):

KGVSLSYRCPCRFFGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFESHGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFESHGGGGGLKWIQEYLEKALN



[Please claim 19 has been amended as follows:]

19. (Amended) A CXCR4 antagonist peptide selected from the group consisting of (SEQ ID Nos. 122-125):

KGVSLSYRCPCRFFGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFESHGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFGGGGGLKWIQEYLEKALN



KGVSLSYRCPCRFFESHGGGGGLKWIQEYLEKALN



[Please amend claim 20 as follows:]

20. (Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

KGVSLSYRCPCRFFGGGGGSKPGVIFLTKRSRQV (SEQ ID No. 126);

KGVSLSYRCPCRFF(CH<sub>2</sub>)<sub>n</sub> SKPGVIFLTKRSRQV (SEQ ID No. 127);

KGVSLSYRCPCRFFGGGGGEEWVQKYVDDLELSA (SEQ ID No. 128);